

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A method of processing product orders from a consumer via a network to allow the consumer to order at least one product from at least one merchant using a consistent user interface, comprising:

retrieving a universal shopping cart;  
displaying product information from said at least one merchant;  
receiving a product selection command from the consumer selecting at least one selected product;  
adding said at least one selected product to said universal shopping cart; and  
injecting at least one product order to at least one selected merchant associated with said at least one selected product in said universal shopping cart.

2. The method of Claim 1, wherein retrieving said universal shopping cart comprises determining whether an existing universal shopping cart is associated with the customer; and creating a new universal shopping cart when no existing universal shopping cart is associated with the customer.

3. The method of Claim 1, further comprising authenticating an identity of the consumer, and exiting the product order process when said identity of the consumer cannot be authenticated.

4. The method of Claim 1, further comprising retrieving reputation information on the consumer from a reputation database and sending said reputation information to said at least one selected merchant.

5. The method of Claim 4, wherein said reputation information on the consumer is gathered by polling at least one merchant on their experience with the consumer.

6. The method of Claim 1, wherein said step of injecting at least one product order comprises authenticating an identity of said at least one selected merchant, and injecting at least one product order to said at least one merchant associated with said at least one selected product when the identity of said at least one merchant is authenticated.

7. The method of Claim 1, further comprising retrieving reputation information on said at least one selected merchant from a reputation database.

8. The method of Claim 7, wherein said reputation information is gathered by polling at least one consumer on their experience with said at least one merchant.

9. The method of Claim 1, wherein the process of injecting the product order is performed by determining said merchant to be an affiliated merchant; and sending said product order to said affiliated merchant according to a predetermined protocol.

10. The method of Claim 1, wherein the process of injecting said product order is performed by obtaining services from a merchant's site associated with said selected product; pattern matching said services; and creating instances of parameterized service for each state that contain essential details required to navigate said merchant's site and place said product order. A state in this instance is a set of methods and data that have input criteria (when the state starts) and exit criteria (all mandatory data has been injected). As above, a state may be a section of the form in the check out process.

11. The method of Claim 10, wherein said services are obtained from said merchant's site by obtaining a copy of each page of said merchant's site relating to product orders using a plurality of accounts.

12. The method of Claim 1, wherein the process of injecting said product order is performed according to an order injection process comprising obtaining services from a merchant Web site associated with said selected product; pattern matching said services to find a set of common characteristics of said services; and creating service equivalent classes that contain essential details required to navigate said merchant Web site and place said product order.

13. The method of Claim 1, further comprising repeating the steps of displaying product information and adding at least one product selected by the customer to said universal shopping cart until a check out command is received from the consumer; and repeating the step of injecting at least one product order until all of the product orders have been processed.

14. The method of Claim 13, further comprising generating at least one product key each of which uniquely identifies each of the selected products and a merchant associated with the selected product.

15. The method of Claim 13, further comprising determining the minimum number of payments that are needed to pay for all of said at least one selected product.

16. The method of Claim 13, further comprising determining at least one common payment method supported by said at least one selected merchant; and paying said at least one selected merchant according to said common payment methods.

17. The method of Claim 1, further comprising receiving a product type criteria, and searching for information on products provided by said at least one merchant that match said product type criteria.

18. The method of Claim 17, wherein searching further comprises querying a product database having pre-stored product information.

19. The method of Claim 17, wherein searching is conducted on the Internet.

20. The method of Claim 19, wherein searching further comprises scraping at least one merchant Web site to obtain product information.

21. The method of Claim 20, wherein scraping a merchant Web site comprises accessing said merchant Web site; searching for information on products in said merchant Web site that match the product type criteria; retrieving said information on products; and exiting said merchant Web site.

22. The method of Claim 1, wherein said product information includes information on a plurality of products of the same product type sold by a plurality of merchants to allow the consumer to view product information and compare products of the same product type sold by different merchants using the consistent user interface.

23. The method of Claim 22, further comprising assigning a product key to each of said at least one selected product to uniquely identify each of said at least one selected product and a merchant associated with said at least one selected product.

24. The method of Claim 1, wherein said universal shopping cart is retrieved from a universal shopping cart database that includes consumer information and information on any previously saved product items.

25. The method of Claim 1, further comprising obtaining an order confirmation from said merchant; and notifying the consumer of said order confirmation.

26. The method of Claim 1, further comprising determining shipping information from said merchant; and notifying the consumer of said shipping information.

27. The method of Claim 1, wherein the consumer is an electronic agent of a human consumer.

28. The method of Claim 1, further comprising providing a network presence to allow the consumer to select and order said at least one product without leaving said network presence.

29. The method of claim 28, wherein said network presence is an Internet Web site.

30. The method of claim 28, wherein said network presence is a proprietary shopping site configured to receive product browsing, selection, and ordering commands from the consumer via the network.

31. A method of ordering products from a shopping site via a network that provides information on a plurality of products from a plurality of merchants, comprising:

- accessing the shopping site;

- selecting at least one product type;

- selecting at least one merchant that carries at least one product that belongs to said selected product type;

adding at least one selected product corresponding to said selected product type and said selected merchant to a universal shopping cart; and

repeating the steps of selecting at least one product type, selecting at least one merchant, and adding at least one selected product until a check out command is received from the consumer.

32. The method of Claim 31, further comprising providing identity authentication information to the shopping site.

33. The method of Claim 31, further comprising selecting a common payment method that is common among a plurality of said selected merchants; and paying said selected merchants according to said common payment method.

34. The method of Claim 31, further comprising specifying a product type criteria to direct the shopping site to search for products provided by said at least one merchant that match said product type criteria.

35. The method of Claim 31, further comprising providing billing information to the shopping site.

36. The method of Claim 31, further comprising providing shipping information to the shopping site.

37. The method of Claim 31, further comprising rating experience with the at least one selected merchant to the shopping site.

38. The method of Claim 31, further comprising receiving at least one order confirmation from the shopping site.

39. A method of providing a user interface to allow a consumer to order products via a network, comprising:

providing a window for the consumer to browse product information from a plurality of merchants, said plurality of merchants including a non-affiliated merchant;

providing a universal shopping cart link for retrieving a universal shopping cart;

providing product selection links for selecting and adding selected products to said universal shopping cart; and

providing a universal shopping cart check out link for checking out said universal shopping cart without directing the consumer to a selected merchant's site.

40. An apparatus for processing product orders from a consumer via a network to provide a consistent user interface for the consumer to view product information and order products from a plurality of merchants, comprising:

a network interface unit for interfacing the network;

a memory unit for storing a universal shopping cart service program and a universal shopping cart database; and

a processing unit operative to process product orders from the consumer according to said universal shopping cart service program by:

displaying product information from the merchants;

storing at least one selected product selected by the consumer to said universal shopping cart database; and

injecting at least one product order to the merchant associated with said at least one selected product in said universal shopping cart database.

41. The apparatus of Claim 40, further comprising a reputation server for storing reputation information on the merchants; wherein said universal shopping cart service program further comprises displaying reputation information of the merchants to the consumer.

42. The apparatus of Claim 40, further comprising a reputation server for storing reputation information on the consumer; wherein said universal shopping cart service program further comprises displaying reputation information of the consumer to said merchant.

43. The apparatus of Claim 40, further comprising a merchant server for providing product information and receiving product orders injected by said processing unit.

44. The apparatus of Claim 43, wherein said merchant server comprises a network interface for interfacing the network; a memory for storing a purchase service program; and a processing unit that processes the product orders according to said purchase service program.

45. An e-commerce server for providing a shopping site to display information on a plurality of products from a plurality of merchants, comprising:

- a network interface unit for interfacing the network;
- a memory unit for storing a universal shopping cart database; and
- a processing unit for providing the shopping site, receiving product selection commands, adding selected products to said universal shopping cart database, and injecting product orders to merchants associated with said selected products in said universal shopping cart database while maintaining a consistent user interface on the shopping site.

46. A computer-readable medium having computer-executable instructions for performing a universal shopping cart service comprising:

- retrieving a universal shopping cart;
- displaying product information from at least one merchant;
- adding at least one product selected by the consumer to said universal shopping cart; and
- injecting at least one product order to said merchant associated with said at least one selected product in said universal shopping cart.

47. A computer-readable medium having computer-executable components for providing a consistent consumer shopping interface comprising:

- a search component for searching product information from at least one merchant;
- a user interface component for displaying said product information;
- product order processing component for injecting at least one product order to said merchant associated with at least one product selected by a consumer without directing said consumer to said merchant's site.